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ABSTRACT

This paper discusses ways in which the findings of phonetic research, especially in the area of articulatory phonetics, can be applied to language teaching. Phonetic descriptions of a relatively sophisticated sort are seen to be useful in language pedagogy in several ways: (1) by providing the student with a knowledge of what he's trying to do (Research in psychoacoustics has led to the conclusion that a student must have some idea of how a particular phonetic distinction is produced before he can come to hear it.); (2) by indicating how one sound is related to others and how motor habits used in producing one sound can be used in producing others; (3) by providing a means of pinpointing students' errors. Phonetic descriptions have the additional advantage of being objective and language-neutral in character. Phonetic training is seen as useful chiefly at the beginning of a language course and especially in dealing with exotic languages. Three main areas in which it can help are discussed: (1) in teaching students a wholly new sort of sound; (2) in teaching students to control distinctions which they are used to treating as automatic in their own language; (3) in helping students to make more or less familiar sound-types in new ways. (FWB)

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PHONETICS

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A course in phonetics for linguists and a foreign language course have one important thing in common: both try to provide the student with a facility in making and distinguishing unfamiliar noises, some of which may be totally strange to him, and many others of which will be used (or studied) in ways that are unlike their familiar form in his ordinary first language activity. Of course, the two are very different, as well, in basic ways. For example, the mastery of a sound system of the unfamiliar language is for the language student simply a means to an end; it is only a stage on the way to productive use of the language. For the budding phonetician, however, the knowledge of unfamiliar sounds is very much an end in itself. While he will, of course, go on to study the sounds in more detail from an objective point of view after he has mastered the distinctions among them, his attention will remain (for the purposes of this course) on very much the same level. This session will discuss the extent to which the two tasks may be related to one another in ways other than the common denominator of concern for unfamiliar sounds, and will discuss ways in which a knowledge of phonetics as an independent field can be of relevance to the language teacher.

One area is the relation between ability to produce a sound and ability to identify it by ear. Generally, before a student can come to hear a particular phonetic distinction, he has to have some idea of what is going on in its production, a kinesthetic sense of the sound that comes from his having been able to make it himself; not necessarily fluently, but at least with effort when he concentrates. At Harvard University, a set of language lab ear training tapes is used: one of the most important aspects of this part of the course is the fact that the student can record his own attempts at a given sound, and compare them with the model on the tape. He thus learns to identify the sound by trying to produce it; and experience shows that no amount of listening will give him the ability to make the identification unless he has some capability of its production. Of course, a tremendous amount of unproductive trial and error is avoided in the process by the fact that he starts out to learn the sound, not just as an isolated event, but as a particular articulation, related to other articulations by sharing some motor events and not others. That is, the student already knows in the abstract that he is trying to produce, say, a palatal nasal, and that that involves lowering the velum (as for the more familiar labial, dental, and velar nasals) and making contact between the blade of the tongue and the palatal-alveolar region, (as in the English y, ch and j sounds, more or less). This knowledge remains abstract until

he tries to do it and compares the results with the model he has on the tape, but it still takes him a long way much faster than pure trial and error. Now much language material doesn't start with production and teach recognition of the new sound system as a consequence thereof, but rather goes the other way. Students spend a great deal of time listening to a model and trying to understand the distinctions being made before they go on to try it themselves. If the experience of the phonetics lab is any guide, this procedure is bound to be wasteful.

Much current language teaching ideology is based on the avoidance, insofar as possible, of any overt instruction or metalinguistic discussion. The view is taken that if you teach a student to do something by telling him outright what to do, he may well be able in a short time to do it, but only by consciously concentrating on what you have told him, and mentally "following the description" or "applying the rule." Supposedly, this process inhibits the development of the skill as an out-of-awareness habit, and permanently impairs the chances for developing fluency. Now the interesting thing about this piece of ideology is that it seems to be nothing but that. There is no sound experimental evidence to support it, and untutored experience seems to suggest just the opposite. At least in field-work phonetics training, the correlation between

sound and description, while it may be only laboriously established at first, becomes quite automatic within a comparatively short period of time. If this result generalizes to the comparable aspects of language training, it suggests that there is no reason for teachers not to provide their students with a clear, conscious, objective description of the sounds they are trying to make at the beginning of the course, since that will apparently shorten considerably the time it takes to get them to make the sounds correctly, an ability which, in turn, seems essential to the development of a recognition skill.

Phonetic descriptions of a relatively sophisticated and complete sort (i.e., articulatory descriptions such as those in the standard handbooks, rather than anecdotal remarks like "the sound t' is somewhat like the English t in tip but more forcefully articulated") can help in the organization of language pedagogy in several ways. Primarily, as discussed above, it can provide a way to give the student a flying start by telling him just what it is he's trying to do. Related to this is the fact that such a description can help him see the way in which one sound is related to others, and the way in which motor habits used in the one are also part of the others. A somewhat extreme case is the relation between click consonants (found in a small number of South African languages, especially Bushman and Hottentot, together with the neighboring Bantu languages)

and the double stops kp and gb (found in a much wider variety of languages, including most of sub-Saharan Africa). Clicks are articulated in the following way: the oral cavity is closed off by the tongue in two places, once with the tip or front blade, in the dental alveolar region, and once with the body of the tongue, in the velar region. The result is a small airspace closed at each end. The body of the tongue is then drawn back, creating a suction in this airspace. The two closures are then released, with an audible pop that is the characteristic of clicks. The two closures can be released suddenly or gradually, laterally, etc. The sound can also be made ejective, aspirated, nasalized, etc. These refinements need not concern us. The main point is the gesture of the body of the tongue, creating the suction that results in the click's distinctive character.

Now consider the articulation of double stops. They sound nothing like clicks at all, and no one would immediately suspect any great similarities. Basically, a double stop is simply the simultaneous articulation of two different stops, one labial and one velar (or, in a few languages, dental, but these will not concern us). Some languages do nothing but this. However, as Peter Ladefoged has recently emphasized, most languages that have these sounds reinforce the double stop by an additional gesture, which results in a much more distinctive sound, and

that gesture is precisely the retracting of the body of the tongue that was so important in the making of clicks. Since the airspace involved in double stops has much different acoustic properties from that formed in a click, the result is much different in sound, but the gesture is the same. Most speakers are not even really aware of this important extra gesture (it being more or less automatic for them), but the only way that seems practical for getting a student to make the sound correctly would seem to be to tell him about it, perhaps even pointing out the similarity to clicks like the noise written tsk-tsk in English. I see no reason to believe there is any better way to tell him than to give him a good articulatory description.

Another use of phonetic description is the possibility of pinpointing students' errors. Naturally enough, the first time people try to make a given sound, they usually do it wrong. Knowing that isn't much use, however, if the teacher is tongue-tied as far as describing the error goes by having no way of describing the way one articulation can differ from another. When a student of Spanish makes his characteristic English dentals, it is surely more helpful for the teacher to be able to say "You're making the t an alveolar, instead of an interdental, Johnny. Try to get your tongue a little farther forward onto the teeth." than just to say "That's not quite

right, Johnny. Listen carefully and try to do it the way I do."

An important aspect of a theoretical phonetic description is its objectivity and language-neutral character. That is to say, one such description has much the same status as another, and most of the links to the student's native language habits can be circumvented. Most texts, when they attempt to describe a sound in the foreign language, do so by telling the student how it resembles and how it differs from a related sound in English. This is natural enough, since a knowledge of English is more or less the only thing the student may be presumed to have. But it is very unfortunate in another way, because the sound in question usually isn't just like the English sound, and the habits involved in producing the English sound shouldn't all be transferred to the new sound. It is impossible to completely avoid such transfer, of course, especially at the beginning of the course. The use of a neutral device like an articulatory description rather than a specifically English (or whatever) biased hint at least makes it not inevitable. To say that a kp in Kpelle is pronounced rather like the k-p in pickpocket may be one way to give the student a hint, but it isn't really like the k-p in pickpocket except grossly, and there's no reason to force the student into bad habits in a language course.

Presumably, most of the instruction in a language course to which the above remarks are relevant comes at the beginning. That is the point at which it is crucial to make the student aware of the range of sounds and distinctions in the new language or he will be unable to do anything else. Beyond this point, however, it is much more debatable what role phonetic drill or whatever has to play in the course. Unless the student is going to a country where the people are going to be exceptionally picky about his pronunciation there's really no point in wasting a lot of time improving his "accent" beyond the ability to produce and understand recognizable speech in the foreign language. The finer points can come later, especially as they are notoriously resistant to teaching.

At those points in the course where phonetic training can be useful, however, the problems to which it can address itself are of three main sorts, in decreasing order of extent to which phonetics is useful. First, of course, there comes the problem of teaching a student a wholly new sort of sound (or at least a sound which he is completely unfamilair with in a given position. Examples are the exotic sounds, like the glottalized (ejective or implosive) consonants, clicks, double stops, the pharyngeals in Arabic, and (closer to home) the velar nasal <u>ng</u> in initial position in languages like Malayo-Polynesian languages. Here is the place where phonetics really shines as

an approach. The problem is to introduce the student to a whole new kind of experience, and the description of the experience works wonders.

The second area, rather less satisfactorily treated than the first, but still an area of usefulness for phonetic data, is the problem of learning to control distinctions that the student is used to treating as automatic in his own language. Examples include learning to distinguish between aspirated and unaspirated voiceless stops when an English speaker learns, say, an Indic language; learning to count the glottal stop (which most speakers insert automatically before words beginning with a vowel) as a respectable consonant, which can be either present or absent with distinctive function. Here it helps a great deal to be able to show the student (by describing it to him) what the distinction he's being asked to make is, and under what circumstances he does the same thing naturally. Here there doesn't seem to be any alternative. I can see no way to give hints like "make the (unaspirated) t like the one in English stop, and the aspirated one like t in top." Unless he already knows what aspiration is, that makes no sense to him. The only problem is that while one can make the student reflectively aware of what you're talking about, that isn't enough to make him do it consistently. Here phonetics has nothing to add.

The third, and least satisfactory problem area is that of simply making students make more or less familiar sound-types in new ways, such as substituting inter-dental for alveolar dentals. Here again, a description can make the student aware of the problem, but in this area the problems of developing a habit so far outweigh the problems of description that the utility of phonetics is most severely circumscribed.

I think, then, that there are a number of ways in which the concerns and results of articulatory (and, to a smaller degree, instrumental) phonetic study can be related to practical language teaching concerns. Especially useful in dealing with exotic languages, overt information from phonetic research should be part of any responsible language training program.